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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,088	12/17/2001	Matthew A. Hayduk	ITL.0649US (P12390)	3752

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EXAMINER	
JAGANNATHAN, MELANIE	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,088	HAYDUK ET AL.	
	Examiner	Art Unit	
	Melanie Jagannathan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-13,15-24 and 26-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-13,15-24 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- Examiner has considered Amendment after Non-Final mailed 2/13/2006.
- Claims 1-7, 9-13, 15-24, 26-28 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 9-13,15-21, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masunaga et al. US 2002/0105977 in view of Wu et al. "Integrated Traffic Control for Multimedia Communications over Packet-Switched Networks".

Regarding claims 1, 9-12,15-18, 26, 28, "establishing a serial physical link and providing isochronous support" (in the IEEE 1394 high performance serial bus standards, the transfer operation that occurs within a network is called a sub-action. For this sub-action, there are defined two transfer modes: an asynchronous transfer mode called asynchronous and a synchronous transfer mode called isochronous in which the transfer band is assured as spoken of on page 1, paragraph 0013) "which by a software control on the serial physical link" (the firmware comprises a transaction layer consisting of a management driver for performing actual operations for the interface conforming to the IEEE 1394 standards, and a management layer consisting of a management driver

conforming to the IEEE 1394 standards called a serial bus management (SBM) as spoken of on page 1, paragraph 0011). Claim 18 having a further limitation of "logical layer control to interface with said physical link" (Figure 3 shows physical layer interface with link layer).

Masunaga et al. does not disclose providing a plurality of different channel mapping schemes and enabling the selection of one of schemes.

Wu discloses traffic scheduling method where different types of traffic sources are multiplexed onto an outgoing link. A dynamic weighted round-robin scheduling method is disclosed with two types of traffic streams, VBR delay sensitive streams and ABR best-effort streams. See page 2, lines 14-29.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify Masunaga et al. with scheduling method of Wu. One of ordinary skill in the art would be motivated to do so for better performance over other multiplexing schemes. See page 2, lines 27-29.

Regarding claims 2, 13, 20, "providing synchronous support by a software control on the serial physical link" (in the IEEE 1394 high performance serial bus standards, the transfer operation that occurs within a network is called a sub-action. For this sub-action, there are defined two transfer modes: an asynchronous transfer mode called asynchronous and a synchronous transfer mode called isochronous in which the transfer band is assured as spoken of on page 1, paragraph 0013) "which by a software control on the serial physical link" (the firmware comprises a transaction layer consisting of a management driver

for performing actual operations for the interface conforming to the IEEE 1394 standards, and a management layer consisting of a management driver conforming to the IEEE 1394 standards called a serial bus management (SBM) as spoken of on page 1, paragraph 0011).

Regarding claims 3 and 19, "providing asynchronous support by a software control on the serial physical link" (in the IEEE 1394 high performance serial bus standards, the transfer operation that occurs within a network is called a sub-action. For this sub-action, there are defined two transfer modes: an asynchronous transfer mode called asynchronous and a synchronous transfer mode called isochronous in which the transfer band is assured as spoken of on page 1, paragraph 0013) "which by a software control on the serial physical link" (the firmware comprises a transaction layer consisting of a management driver for performing actual operations for the interface conforming to the IEEE 1394 standards, and a management layer consisting of a management driver conforming to the IEEE 1394 standards called a serial bus management (SBM) as spoken of on page 1, paragraph 0011).

Regarding claim 4, "providing separate logical and physical layers" (Figure 3 shows a separate physical layer and link layer).

Regarding claim 21, "physical layer control is coupled to said logical layer control (Figure 3 shows physical layer interface with link layer).

3. Claims 5-7 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masunaga et al. in view of Wu et al. in further view of Sarkar (VLSI 2000: "Digital Imaging with Wireless Data Services").

Regarding claims 5 and 22, Masunaga et al. and Wu et al. disclose all of the limitations of the claims except for "providing a multiplexer in the physical layer coupled to the logical layer". Sarkar teaches a cdma2000 layer where multiplexing of the logical channels from/to different physical channels based on the logical to physical mapping table as shown in Figure 11 and spoken of on page 6, paragraph 1. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to combine isochronous, synchronous and asynchronous streams and multiplexing them at the physical layer. One of ordinary skill in the art would be motivated to do so to support higher speed data, useful for imaging as spoken on page 6 in conclusion paragraph of Sarkar reference.

Regarding claims 6 and 23, Masunaga et al. and Wu et al. disclose all of the limitations of the claims except for "coupling a baseband processor to physical layer". Sarkar teaches a conceptual diagram of MSM3000 where CDMA processor is integrated as a phone as shown in Figure 9 and as disclosed on paragraph 2 on page 5. At the time the invention was made it would have been obvious to a person of ordinary skill in the art handle CDMA protocol via CDMA processor to allow the application processor to support more data intense tasks. One of ordinary skill in the art would be motivated to do so to support higher

speed data, useful for imaging as spoken on page 6 in conclusion paragraph of Sarkar reference.

Regarding claims 7 and 24, Masunaga et al. and Wu et al. disclose all of the limitations of the claims except for "coupling an applications processor to physical layer". Sarkar teaches a conceptual diagram of MSM3000 where microprocessor subsystem is integrated as a phone as shown in Figure 9 and as disclosed on paragraph 2 on page 5. At the time the invention was made it would have been obvious to a person of ordinary skill in the art handle CDMA protocol via CDMA processor to allow the application processor to support more data intense tasks. One of ordinary skill in the art would be motivated to do so to support higher speed data, useful for imaging as spoken on page 6 in conclusion paragraph of Sarkar reference.

Response to Arguments

4. Applicant's arguments filed 2/13/2006 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues Wu et al. does not disclose different channel mapping schemes and enabling the selection of one of those schemes. Wu et al. discloses a dynamic weight round-robin scheduling method for different types of traffic. In light of claim language, Examiner interprets the different channel mapping schemes as the different scheduling for the different traffic and interprets the

selection with the particular scheduling for the multiple packet streams depending on its type. Therefore, rejection is maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 571-272-3163. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJ
6/9/06

CHI PHAM
SUPERVISORY PATENT EXAM 6/12/06